WASHINGTON STATE DEPARTMENT OF ECOLOGY

EPA

January 22, 2008

Briant L. Charboneau, Project Manager
Richland Operations Office
U.S. Department of Energy
P.O. Box 550, A6-33
Richland, Washington 99532

Re: Deep Vadose Zone Treatability Test Plan for the Hanford Central Plateau

Dear Mr. Charboneau:

The U.S. Environmental Protection Agency (EPA) and the Washington State Department of Ecology (Ecology) have reviewed the *Deep Vadose Zone Treatibility Test Plan for the Hanford Central Plateau* (DOE/RL-2007-56) submitted by the U.S. Department of Energy (DOE). The document includes a good description of the screening of technologies that may be used to address deep vadose zone contaminants in the 200 Area or Central Plateau of Hanford. However, the plan falls far short in some major areas and fails to meet the substantive requirements of a work plan as described in the Hanford Federal Facility Agreement and Consent Order (Tri-Party Agreement). Those deficiencies will be described further in this comment letter.

Tri-Party Agreement Milestone M-015-50 requires DOE to "submit a Treatability Test Work Plan for Deep Vadose Zone Technetium and Uranium to Ecology and EPA. The Treatability Test Work Plan shall be a Tri-Party Agreement primary document subject to Ecology and EPA approval." The explanation of change from the associated change package states that the purpose is to "...survey and field test promising technologies for treatment of deep soil-zone contaminants." The test plan, as written, does not include plan elements for conducting any specific field tests. DOE must provide a detailed description and schedule for a field test on at least one specific location and type of technology for each of the two contaminants. The work plan must include task and schedule items for developing plans for additional field tests, which would be submitted as a revised version of the plan to the regulatory agencies for approval. The submitted plan contains only a placeholder in the schedule for testing and uses terms like "anticipates" and "potential candidate sites." In fact, one of the schedule items in the treatability test work plan is for submitting another work plan in June 2008. M-015-50 required the treatability test work plan to be submitted no later than December 31, 2007.

The submitted test plan does not commit to a specific field test site. Figure 6-1 (schedule) identifies the 200 BC Cribs and Trenches area as the first location for a field test. It is an ideal location for the first field test for technetium. A specific technology to address the deep technetium-99 must be demonstrated in the field on a schedule that is more aggressive than the

schedule placeholder provided in the test plan. The schedule placeholder provided does not appear to be realistic because it compacts the duration of the placeholder for the field test to a short few months in order to provide results consistent with the 200-BC-1 RI/FS schedule. Testing must be conducted sooner in order to allow enough time to gather meaningful performance data to support timely 200-BC-1 OU remedy evaluation and selection. It is our understanding that the deep boreholes for electrical resistivity validation at the 200 BC Cribs and Trenches will all be installed by some time in June 2008. The field test should commence much closer to this time than to the schedule placeholder in the submitted plan which shows the beginning of the field test as July 2009.

The M-15-50 milestone requires DOE to test technologies for both technetium and uranium. A specific technology to address the deep uranium must be demonstrated in the field on a schedule that is more aggressive than the schedule placeholder provided in the test plan. The Figure 6-1 schedule does not identify a specific location for the first field test for uranium. We believe that the subsurface uranium plume from the B/BX/BY waste management area is the best site. It has already impacted and continues to impact groundwater. It is clearly the most urgent uranium problem in the 200 Area.

EPA and Ecology have been clear in meetings (such as the Deep Vadose Zone Strategy Workgroup meeting held July 25, 2007) and communications with DOE that the work plan could not be just a "plan for a plan." However, without identifying and committing to any specific locations and technologies for field tests, the document submitted is not a work plan, but a plan for submittal of a work plan.

Section 11.6 of the Tri-Party Agreement Action Plan requires that work plans:

> [S]hall describe in detail the work to be done and include the performance standards to be met. They shall also include an implementation schedule with start and completion dates. The work plan schedule shall identify completion dates for major tasks and deliverables as interim milestones. Milestones shall be set in a manner which fits the requirements of the work to be accomplished, with at least one milestone every twelve months, unless otherwise agreed to by the project managers. A change package shall be submitted with the work plan which identifies the interim milestones.

DOE did not provide the required information and schedule and did not provide a change package with the work plan. DOE must revise the work plan to include the information and schedules required by Section 11.6 of the Action Plan and must also submit the required change package.

In addition, the Tri-Party Agreement Article XIV, paragraph 50 states that "DOE agrees it shall develop, implement and report upon remedial investigations (RIs) which comply with applicable requirements of CERCLA, the NCP, and pertinent written guidance and established written EPA policy, and which is in accordance with the requirements and time schedules set forth in the Action Plan." The treatability test is part of the site remedial investigation and necessary for the remedial alternative selection process. EPA guidance on conducting

treatability studies* was not followed in that several elements of a treatability study work plan were not included. The sections missing are necessary to cover the specifics for each treatability test including identified field testing. Sections missing include experimental design and procedures, equipment and materials, sampling and analysis, data management, data analysis and interpretation, health and safety, residual management, community relations, and budget.

In the submitted test plan, DOE extends the time period for EPA and Ecology to provide comments for primary documents to 90 days from 45 days as specified in the Tri-Party Agreement (see Section 9 of the Tri-Party Agreement Action Plan). DOE indicates in the document that the extension was provided to allow additional opportunity for stakeholder involvement. EPA and Ecology did not agree to the extension and have provided comments within 45 days. Stakeholder workshops have been held for the 200 BC Cribs and Trenches deep technetium-99 problem and additional opportunity for stakeholder workshops and involvement should be provided in designing and conducting the field tests, including a field test(s) for deep uranium contamination. The earlier workshops and the one planned for February are examples of opportunities that can be provided for stakeholder input without delaying regulatory agency review and comment on the submitted work plan.

As required by the Tri-Party Agreement, DOE must update the document and/or respond to the comments within 30 days of receipt of this letter. As provided in Section 9 of the Action Plan, this document review process does not preclude EPA or Ecology from taking enforcement action at any point in the process for failure to perform. If you have questions, don't hesitate to contact John Price at 509 372-7921 or Craig Cameron at 509 376-8665.

Sincerely,

John B. Price

John Price, Project Manager
Washington State Department of Ecology

Craig Cameron

Craig Cameron, Project Manager
U.S. Environmental Protection Agency

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Administrative Record: 200 Area NPL Site

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* U.S. Environmental Protection Agency. Guide for Conducting Treatability Studies Under CERCLA, Final. EPA/540/R-92/071a, October 1992.